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NEWER STUDIES OF DISEASES OF THE STOMACH*

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Conceptions regarding the work of the stomach have varied from time to time, but all theories regarding its function are submerged in the type of work which is performed, namely the reduction of food to chyme. There may be a difference of opinion regarding the extent to which different varieties of food are handled in the stomach and comparisons between gastric and intestinal work, but there can be no difference of opinion regarding the essential fact, namely that all varieties of food are reduced to a consistency so characteristic of chyme. The mechanism by which this is accomplished is an elaborate one and by no means all the steps in the process are well understood. I am almost tempted to say that nearly all the steps are but imperfectly understood. We do not know the exact way in which the secretion is formed, nor do we know much more than the gross phenomena of peristalsis. That the work of the stomach is highly specific and that the stomach responds in a characteristic way to each variety of food is now conceded. Students of digestion are surprised at this, but it is, nevertheless, true if you will study in turn the gastric behaviour of the various foods in the healthy normal stomach. For many years our conception of the stomach was that of an organ more or less isolated, uniquely capable of handling various foods but in a sense isolated and if removed by the surgeon, of no great importance.

Today all that has been modified and we realize that the stomach is part of a far-flung system linked up with many organs and playing a distinctive part in the work of digestion. We know, for instance, that it plays a part in the acid base equilibrium of the body. We know that its activity is heralded by a change in the carbon dioxide tension of the alveolar air and that this change fails to occur if the stomach fails to secrete acid. The ventilating power of the lungs therefore compensates for a disturbance in the acid base equilibrium. We believe that the stomach is now intimately linked up with pancreatic function and not only are they synchronized, but it is altogether probable that the pancreatic secretion is one of the elements if not the chief element in the regulation of gastric acidity. There is much to suggest that liver function is in some way associated with gastric function. The constant finding of achlorhydria in pernicious anemia and the complete change in the blood picture without the return of acid following the administration of liver is suggestive, to say the least. We know that the stomach can undergo pronounced changes in diseases of the biliary tract, and the finding of low acid figures in the majority of cases of operatively proven cholecystitis would lend color to this belief. Gastric and intestinal function are compensatory and if gastric function fails, the upper small bowel usually compensates. If this fails, we have symptoms. We know that at times the stomach can assume the role of vicarious elimination—notably in kidney disease, where urea can appear in the vomitus of uremics. There is scarcely an organ in the body which is not linked up directly with the stomach. Not only is it a barometer to the entire digestive tract guarding it from unsatisfactory ingesta and if necessary forceably expelling them, but in organic diseases as well as functional of the rest of the tract, the gall bladder, the pancreas, the small bowel, the appendix, and the large bowel, the sensitive function of the stomach is modified so markedly at times as to constitute the major complaint of the patient and even obscure the causative ailment. I need hardly speak of the gastric manifestations of the tuberculous, the endocrine, the nervous patients. These are all chapters which are associated with more or less obvious disturbances which we are slowly but surely unravelling. Organic disease of the stomach is more

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certain in its effect, but sometimes not as dramatic in its evolution.

Let us for a moment consider the two major subdivisions in gastric function from a somewhat different angle. These two functions completely harmonized in health are the secretory and motor phases of gastric work. The exact mechanism by which the gastric secretion is formed is not known. There are many theories but no one conception which fits all the factors of the case. Regarding the appearance of the secretion and its natural history we know a great deal. We know, for instance, that there is really no such thing as a completely empty stomach. We now subscribe to the conception that there is a minimum basal secretion which is more or less constant even when the stomach is fasting. We know in a general way the velocity of this secretion and its characteristics and we know that it is slowed up in inflammatory mucosal conditions and increased in certain irritative conditions more particularly duodenal ulcer. We know that the digestive phase is another story, analysis of which emphasizes in health a definite sequence of events. We note first a period of adjustment after the entrance of food into the stomach. During this period irritating substances are brought to normal optimum. For instance, 0.5% HCL is brought down to 0.2%; alkalies are neutralized and followed by acid: concentrated fluids are diluted; and increasing velocity in the production of gastric acid occurs; peristalsis begins and the work of the stomach is initiated. The second phase short with carbohydrates and long with proteins is the so-called "acme" or high tide of gastric work during which all the secretory and motor work of the stomach is at maximum. During this period, practically every peristaltic wave is followed by the emission of small amounts of material into the duodenum. The final phase, I call the readjustment phase and is characterized by a gradual appearance of the phenomena of the fasting stomach. These periods so characteristic of the normal stomach may be modified or even completely destroyed in disease.

One practical problem which is engaging the attention of students in this field is the regulation of gastric acidity. It is universally conceded that the acidity of the native secretion is somewhere in the neighborhood of 0.4% HCL. The optimum ordinarily encountered with the test meal is 0.15 to 0.2% HCL. How is this accomplished? Probably by a normal pancreatic regurgitant mechanism by which the alkaline pancreatic juice flows into the stomach at intervals, more particularly during the fasting stage and induces the optimum. There is much experimental work which tends to show that this is a normal regulating mechanism and if it fails we have hyperacidity. The English school believes that its failure to regurgitate into the stomach is due to hypertonicity of the pyloric sphincter but hypertonicity of the stomach as a whole can produce the same result. Quite recently McLean and Griffiths enunciate the theory that the regulation of the gastric acidity is a self-limited mechanism confined to the stomach itself and that the stomach secretion when it reaches a certain H-ion concentration is altered on the part of the mucosa so that more neutral chloride and less acid is formed by the mucous membrane. There are many factors which, to my mind, do not fit in with this theory. Babkin believes that there are three varieties of cells, each capable of elaborating different elements and that the interrelation of these groups results in the formation of a secretion which may be different. It is needless to point out that this disagrees with Pawlow's idea that under ordinary condition and when the stomach is actively secreting, the secretion is poured out in constant acid concentration. I am not committed to this theory, although some years ago I wrote a paper on data which strongly suggested that such was the case in the human subject.

The effect of disease on the secretion, whether by affecting the mucous membrane, or the blood supply, or the nervous mechanism, is manifold. We are beginning to realize the seriousness of persistent low acidities and achylias. Not infrequently they precede pernicious anemia. They are associated with many chronic infections and in my opinion, they are never normal as some observers would have us believe.

Gastric motor function is likewise a vast field which the student will find full of speculation. There is no unanimity of opinion on the subject of the sequence of the peristaltic waves. Some observers hold that the waves begin in the fundus and go on uninterruptedly to the pylorus. Here the observers split two ways. One group believes they go over into the duodenum and another group maintains that they stop at the pylorus. The same thing is true regarding the antrum which does most of the mechanical work of

the stomach. One group considers the antrum waves as a simple continuation onward of the peristaltic wave and another group maintains that the antrum contracts as a whole in the nature of a systole and diastole. One observer actually claims to have seen both types of movement and some of our tracings would suggest the same. When we realize how little of the newer physiological knowledge has been incorporated into our clinical teaching, we can understand why many of the older conceptions still hold sway. To me, one of the most interesting facts regarding the stomach is that there is a great difference in the behaviour of different parts of the stomach wall when examined by the physiologist. By means of isolated muscle strips taken from the wall of the animal under investigation, it was found that different parts of the wall contract differently and show a distinct difference both in rhythmicity and tonicity. In the cardia, the movements are small and frequent — in the greater curvature and the antrum large isolated movements strongly resembling peristaltic contractions are demonstrated. Perhaps more than anyone else, Alvarez was responsible for the dissemination of this knowledge. This summer Drier and Gorman, under my direction, worked on the stomachs of rabbits. With isolated muscle preparations taken from various parts of the stomach wall and preserved in ice, they were able to obtain tracings as characteristic as those of Alvarez, but the antral movements instead of occurring at twenty-two-second intervals occurred at eight-minute intervals. Consider for a minute the conditions of the experiment. The animal is killed, the muscle dissected in Locke's solution and cut in strips. The strips preserved on ice for twenty-four hours, then immersed in Locke's solution, with electrolytic control of temperature and the presence of oxygen and at regular intervals contractions are recorded which for the element of time resemble some of those which we have been able to obtain from balloons in the normal human stomach. These experiments leave scarcely a doubt but there is a very real difference in different parts of the gastric wall and that the active motor mechanism, the grinder and the part of the stomach which does the work is the antrum. Dr. Eads, Dr. Thomas and I, by means of a double tube and balloons placed in the normal human stomach and controlled under the fluoroscope, were able to get tracings of the sequence of events in the antrum and first part of the duodenum. We found as Ivy had already pointed out that the duodenum has hunger contractions as great or even greater than those recorded in the stomach, we were able to demonstrate the almost clock-like regularity with which the gastric antrum does its work, but all this work throws light simply on the sequence of events. As yet, there is no evidence of what disease does except the testimony offered by the xray and this is gross rather than fine. Alvarez actually was able to obtain an electrogastrogram of stomach movements in a human subject, which we hope to do some day. It is altogether probable that we will be able to estimate not only the secretory phenomena but also the motor phenomena in such a way as to leave little doubt as to what part of the machinery has gone wrong and how—but that time has not yet arrived and the methods employed are not satisfactory for routine clinical use. Those pictures which we show simply suggest how interesting and suggestive is this problem.

The general practitioner has many problems; he might well ask what all this has to do with his problems. Perhaps not so much now but eventually a great deal. Because the general practitioner is the supreme arbiter of the patient, we have been too accustomed to the tendency of the day to treat all forms of indigestion along general lines, to trust to symptomatic treatment rather than specific treatment. My relations to the general practitioner are sufficiently close to know him well. He has his hands full and so have I, but there are some things which he fails to realize in many instances that occur. In proportion as he is well-trained, will he take advantage of the methods for the study of gastric disease and if he will use these methods intelligently he will be surprised at the results. We only have four methods at our disposal for the study of diseases of the stomach: (1) the history; (2) physical examination; (3) gastric analysis; (4) xray examination. He can do three of these and the fourth he should be sufficiently interested in to intelligently interpret. The history of nearly all gastric cases is written in the first two hours after the ingestion of food because it is in this period that the stomach shows its greatest activity. An attempt to study the sequence of events, the relationship of symptoms to gastric function will repay any thoughtful physician.

This is no place to discuss the taking of histories, but even the girl in my office makes a temporary diagnosis after she prepares the history and I am surprised how often she is right. Physical examination needs no word of mine. It is a routine. I cannot sufficiently condemn the practice of prescribing anything for the stomach without examining the abdomen. The last case of appendicitis I saw before I left for my summer vacation actually received medication for abdominal pain and maintains that two physicians who saw her failed to put their hands on the abdomen. I have no such courage, I am not happy until I have at least satisfied myself on that score and there are so many conditions which can be ruled out by that simple examination. The man who practices physical examination of the abdomen conscientiously will rarely ever go far astray. He may fail to diagnose many lesions but he will rarely ever meet any acute emergency without realizing its significance.

It is of the stomach tube that I would speak. The stomach tube is to the physician interested in stomach conditions what the stethoscope is to the chest man. It is his means of exploring the interior. With the small fractional tube, there is no excuse for any physician denying himself the information which it yields. If the nurses and internes use it routinely any physician with little persistence can readily learn how to use it. The stomach tube of the small type is swallowed like food. It is not rammed into the stomach but swallowed in a natural manner. I can teach the average student in a few minutes nearly all he needs to know about the passage of the tube, but the interpretation of the findings, that is another story. The stomach tube is our means of studying the contents of the stomach or rather the gastric physiology. It enables us to determine the sequence of events in the stomach and to ascertain whether that sequence is normal or pathological. The specimens don't come out labelled with the name of the disease any more than does any other specimen in the body. But certain diseases are undoubtedly associated with certain definite alterations in the gastric response. Some diseases alter the secretory mechanism, others alter the motor mechanism and still others give telltale evidence of their presence by the presence of characteristic pathological elements such as pus, blood, mucus, food retention, cell exfoliation, etc.

The stomach tube not only enables you to determine the digestion of a normal test meal, but you can study the digestion of any meal with it. That is exactly what we did for over eight years. Furthermore, the stomach tube is not alone an instrument of diagnosis, but it is an instrument for therapy, for local application, for investigation of the duodenum with its associated organs, the biliary tract, pancreas, and liver. And it is an instrument for thoroughly cleaning and disinfecting the organ. Broussais, years ago, said he could not understand how any organ submitted to all the dietetic insults of the age in which he lived could stand up under the task. If you will study the stomach you will be impressed with the truth of his remark and the realization that this age may be almost a hundred years later, but conditions are very much the same.

Peptic ulcer has troubled all of us with its complexities and its problems. I want to make clear just one thought which is impressed on my mind more and more as I continue the practice of medicine and that is that the treatment of peptic ulcer is the general practitioner's problem. He may not be able to make a fine diagnosis or a complete diagnosis, and a complete diagnosis includes not only the diagnosis of ulceration but its position, its extent and the presence of complication. For that purpose he will undoubtedly get help and if it is a complicated ulcer with stenosis, or the possibility of malignancy or perigastritis, or periduodenitis, he will turn the case over to the surgeon, but if it is a simple uncomplicated case of peptic ulcer whether gastric or duodenal, then the work is his and he ought to have his work checked up at intervals.

It is precisely this type of so-called medical ulcer or uncomplicated ulcer that interests you and me, and in my experience it is exceedingly common. What can you do with it? As the years go by, I am more than ever convinced that simply ulcer treatment in bed for a few weeks accomplishes no lasting good. The symptoms may disappear, but it is often the symptomless patient who is in the most trouble. The average patient with duodenal ulcer who has consulted me has had tangible evidence of his trouble for about seven years. It probably takes six months to two and one-half years for peptic ulcer to heal under favorable conditions, although the niche of gastric ulcer will sometimes almost completely disappear in several weeks. This is rarely ever the case with duodenal ulcer. Medical statistics

are unreliable because we cannot directly inspect the organs as can the surgeon and the surgeon has no license to criticize the physician when admittedly he only sees those that are not cured. Some of the surgeons would even deny that any are cured that way, although Smithies and myself and a few others have reported healed duodenal and gastric ulcer demonstrated on the operating table and necropsy statistics revealed many instances of healed ulcers. This is no place for arguments for and against medical treatment. If the patient is anxious to have an operation, he will find many surgeons who will accommodate him. What, then, are the important principles in the treatment of ulcer? First and foremost I would say an ambulatory method. It is impractical to keep a patient six months to two and one-half years in a hospital. But he can and must alter his life and find a system of living which is conducive to ulcer healing.

There is such a system of living and we are finding more about it every day. It cuts out tobacco and alcohol; it insists on three meals and three extra feedings, it demands all the ordinary precautions that good hygiene prescribes for the patient. More than that it outlines a dietary which is neither difficult for the patient nor impractical in any way. It insists that all demonstrable foci of infection be removed and finally as a control in order that we can see where we are, we insist on regular check up examinations to determine whether our system is accomplishing its effect and whether or not we must alter our method. An ulcer may heal and still induce stenosis and become surgical. But in my experience ulcers which are submitted to the above plan rarely ever present acute surgical emergencies. The time limit for ulcer living rather than any giving method is like the treatment of diabetes and only when all evidence of the lesion has disappeared do we allow individuals a broad latitude and the use of substances which we know are distinctly harmful to the healing of ulcer. The point that I would make is that there is a method of treatment, highly successful in the hands of many men, which the general practitioner can and should use. It is up to the general practitioner to make this clear to the patient, to emphasize the necessity of following a plan and to see that he does it.

Cancer of the stomach is not so simple. Here the entire effort of the physician must concentrate on early diagnosis. The average patient with cancer of the stomach has had it from six months to two and one-half years before he consults a physician who makes the diagnosis. This is not the fault of the family practitioner because in the majority of cases in the first six months the patient himself is not convinced that he needs medical advice and if he does, no ordinary test will reveal its presence. It is this stage which reveals no physical signs, little or nothing in the history and only early changes in the gastric analytical findings and the xray. I have seen gastric cancer which failed to show a sign on xray examination although two months later anyone could recognize it. I have seen cases which were revealed by gastric analysis and not by the xray and vice versa but I have never seen a case which was entirely negative to both findings. This in my judgment is the most important finding in gastric cancer. And it emphasizes the neccessity of doing both examinations in every case. I have no hesitancy in saying that a patient has not gastric cancer if gastric analysis and xray studies by a competent observer are entirely normal. But I do say that no clinician, be he ever so astute, can detect this lesion in its early stages by his unaided senses. I have only this to say about gastric cancer: I have seen cases not detected with the xray and cases that were not detected with gastric analysis, but in all my experience I have never seen a case of operatively demonstrated carcinoma that did not reveal its presence by one or the other test. The inference is obvious, if both of these studies are negative we can assume that gastric carcinoma does not exist and only then. Therefore I say to you, if in doubt have a careful study made by both of these methods; if they fail to agree, go farther but at least make these studies and I am reasonably certain that any doubts you may have will be dispelled.

In conclusion there are two questions I want to speak of at this state meeting. Ulcer of the stomach should be taken up and anything new in that line ought to be carried out. I haven't any hesitation in saying that peptic ulcer requires some different arrangement in the handling of patients. Practically the best men in this country today handling the subject are satisfied with putting the patient in bed and keeping the patient there two or three weeks. That does not cure it. It requires six months to two and one-

half years for cure and the only way to get a cure is to work out a method of living for these patients and control them radio-graphically and recheck them at regular intervals.

All over the world that is beginning to be realized and you men who are here in the state meeting, if you are at all interested in this subject, will please me very much if you will drop me a line asking me to send you the outlines we use for those cases in an attempt to reeducate these people who have ulcer and in an attempt to get them held up and straightened out.

Time doesn't permit me to go into those details a great deal, but if you have a case of ulcer and you learn how to handle yourselves and live on a proper dietary and follow the rules and regulations that ought to be followed in such cases, you can say with reasonable assurance that there is a chance if the system is followed, a chance within two or three years, I would say, a chance which is very close to 70 per cent of getting an entirely successful result.

I wish the time were available for showing you those details, but it isn't. I can only say those of you who are interested, if you write to me, I will be glad to send those things and give you the information.

The last thing I want to mention is cancer of the stomach. I have only this to say about it: One cannot have seen those remarkable pictures of cancer of the larynx without realizing that early diagnosis is the important thing. I have seen cancer of the stomach which did not show on the xray screen or by gastroscopic analysis, but I have never seen a case of cancer of the stomach which did not show its evidence by one method or the other, and if I were to sum up my experience in it completely, I would say in every case where cancer of the stomach had gastroscopic analysis and a complete xray examination, one or the other would show its presence. If both are negative, then in my experience there is no cancer of the stomach.

If, on the other hand, even in early cases, you do the thing routinely, you will find the evidence in one or the other.

When you get into question of the stomach, you can keep on going all day.

DISCUSSION

DR. G. W. VAUGHAN (Wilmington): Dr. Rehfuss' paper is very enlightening. I appreciate the work of muscle tracings. In his introductory remarks he spoke of the connection of practically every organ in the human body and the influence of that on the stomach. I am wondering where we are ever going to get when we have to differentiate between the different diseases from the different tracings. It looks to me like a stupendous job.

Dr. Rehfuss also mentioned the simplicity with which a stomach tube can be inserted. I worked with Dr. Bachus for a while in Philadelphia and I have heard Dr. Bachus speak of timing the tube. I have never read of it, but the ordinary patient is panicky enough. They have heard such weird tales about swallowing the Rehfuss tube or any other tube, and it seems to me it is a good thing to instruct them to be themselves and act as nearly normal as possible, and then they won't gag and choke nearly so readily as if you have them just open the mouth and put the tube in. I have seen many patients who have been mistreated with stomach tubes by internes and doctors who have not properly instructed them.

If they are instructed to take a deep breath and then exhale, and if the tube is placed well back at the base of the tongue and then they are instructed to swallow, they immediately and naturally inhale, and that will carry the tube on down into the esophagus.

I should like to ask a question of Dr. Rehfuss. I realize that it is a great big one. In my work I have been confronted with the problem on many occasions of the diagnosis between duodenal ulcer and cuolecystitis. I have found in a great many cases of cuolecystitis, where we have not cholelithiasis but an infection of the gall bladder and excoriation of the mucous membrane, in practically all of those cases we have a marked hyperacidity. If you follow many of those cases up, you find some xray evidence of disease in or about the duodenum. Many times does the cuolecystitis and duodenitis exist at the same time. I should like to have your opinion on just how you differentiate, and as to the method of treatment.

DR. REHFUSS: Gentlemen, I almost apologize for bringing here to a practical meeting abstract problems such as were brought here this afternoon. It would interest you, I thought, to see some other phases of this thing because I know perfectly well you have never seen the things you saw this afternoon because nobody

else has ever seen them, and I will admit they are not practical now, and when the Doctor asks, "What do these tracings mean?" that is what I want to know, but first the thing you want to know is how to get them and then figure out what they mean. That is the way everything happens in medicine. It is my good or bad fortune to do the things because they interest me and because eventually order comes out of chaos, but I can't conceive of anything more remarkable than to take any animal and remove a muscle from its stomach twenty-four hours previous to the examination that was made and then get a perfectly characteristic tracing such as you did not see here, but such as we have. It shows something which I can't explain. It shows something which apparently the Creator in making us up put in there but most of us don't know anything about it.

When we come down to ordinary routine gastro-intestinal work, which perhaps might have been a more fitting subject, but less interesting and less dramatic, there are many problems that come up. Dr. Vaughan mentioned two. If anyone has passed a stomach tube more than I have, I want to see that gentleman. I have carried one around with me even when I didn't own a watch chain, and you see I have two of them with me today. I pass stomach tubes all day long some days and we used them when we were working on the digestion of food in the normal stomach. We had a row of men there. I maintain that the stomach tube is not hard to pass. If I can get my nurses and residents to do it readily (we have one hundred and fifty nurses at Jefferson and every one can pass a stomach tube and do it well) there is no excuse for anyone's saying they can't learn to do it.

Then I want to call attention to the fact that if it is passed, then the material you get, the information you get, is first hand. One woman told me she could digest chocolate. I saw her stomach on the screen and I knew it was too slow and one of the most notorious things to go through a slow stomach is chocolate. I said, "I will prove it to you. Swallow the stomach tube." I wanted to bet her $100 or $50. I thought it was an easy way to get the money from a rich woman and I said "I should like to prove it has not gone through." I pumped up enough chocolate from that woman's stomach so that she does what I tell her now. She doesn't ask any questions about it. If that is not psychology, what is it?

That is why the gastrologist is in a position to ascertain factors for himself, but uses the tube for diagnosis and for treatment. I say that everybody can use the stomach tube, and everybody can, and there isn't any man on earth, no matter how skillful, who will not fail in some cases because some people cannot swallow the stomach tube. They have a constitutional predisposition to have nothing pass the larynx but most people can do it sensibly and naturally.

The question was asked as to diagnosis differences in cases of duodenal ulcer and of cuolecystitis. Duodenal ulcer and cuolecystitis can occur together and frequently do. I say that because if we study the duodenum we have two methods besides the history and examination. We have the duodenal tube and the xray. The Doctor is perfectly right. In many gall gladders there is pericuolecystitis with fixation of the duodenum. We have the history, the duodenal tube, and the cystogram, so, in the hands of those men who know how to do it, we can make the diagnosis in the great majority of instances. In our routine we do a cystogram in every case and use the duodenal tube in every case. I will not make a diagnosis of duodenal ulcer unless I see it on the screen or detect something that looks like it.

Twelve years ago I had one case that didn't have it, but I wouldn't make that mistake now. I know it was not the kind of defect which I know today is a duodenal ulcer in practically every instance. I wouldn't make the diagnosis because a man has hunger pain, because you can have that without duodenal ulcer, and you can have a typical history without it, but you cannot get a typical deformity characteristic of the disease, any more than the absolutely typical deformity of a chronic perforating gastric ulcer. I have never seen a case of typical deformity of that type that was not a chronic penetrating ulcer on operation. I have seen a lot of pictures that looked like it but weren't the real thing. You can tell the difference and the men who have not had that experience will make that mistake.

What about the cuolecystogram? I believe in it. It makes mistakes. Even Whittaker, even my friend out in St. Louis, and many others also, say you can get a normal cuolecystogram with a beginning strawberry gall bladder. Sure you can. You can have a diseased stomach without xray defect, but I say when the gall bladder shows

up clearly with the dye, then in my judgment that is not usually a surgical gall bladder, and I propose to find out more about it by the ordinary medical tests.

So I will answer by saying show me the gastric defect of the duodenal cap, and I don't care whether he has anything else, he has a duodednal ulcer, and if you want to know about the gall bladder, do the tube work plus the cystogram, plus the history, and you will be on the right track there.

Excuse me for being overenthusiastic on the subject, but I am loaded up with it. Anyway, that is the way I look at that.

Medicine in Soviet Russia

Dr. Ralph A. Reynolds, retired president of the American Medical Association of Vienna, on his return from Soviet Russia told the New York *Herald-Tribune* that he had visited a large number of clinics in Moscow and Leningrad. Under the socialist system every worker is insured, and when he gets ill the insurance not only pays the full wage during the time of disablement but also the hospital expense.

An institution which has no parallel abroad is the night sanatorium for workers who are in a poor physical condition. These workers, instead of going home when their working hours are over, pass the remainder of the day and the night in the sanatorium. They get a shower and are put to bed for an hour, then do physical culture exercises after which they may occupy themselves as they like until bedtime, which is fixed at an early hour. They are also served a special diet. Only on Sundays are they allowed to leave for their homes. Such a "cure" generally lasts two months. In Moscow there are twenty-four night sanatoria, ten of which are for tuberculosis suspects.

There are 156 day nurseries in Moscow alone, each of them near a big factory. The average attendance is 125 children. To instil the spirit of sovietism at an early age pictures of Lenin as a babe decorate the walls.

The medical service is public. Everybody is entitled to free treatment. About 140 physicians are on duty at a Moscow clinic, and from thirty to forty doctors are detailed to at-home service during the night hours. As private practice is abolished anyone taken ill or meeting with an accident during the night telephones to the nearest clinic and is taken care of.

Village clinics have been distributed so that each clinic serves a population of 15,000. In the more sparsely populated districts this means that many people are more than fifty miles from a doctor. It is difficult to win the uncultured peasant class to modern ideas of hygiene; conditions in the open country are still appalling.

The Russian Government spends money lavishly on modern instruments and other equipment. Funds are always available for research work and propaganda, but the salaries of doctors are small and cannot compare with what a professor or a practitioner can earn in other countries. Physicians of high standing get about a hundred dollars a month and have to be contented with a miserable home of one or three rooms with a kitchen that is often shared by as many as six families. The idea is that a doctor's home should not be so good as the class of homes given to Communist skilled workers who form the aristocratic class in the Soviet Republic.

THE XRAY STUDY OF THE LARGE INTESTINES*

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The purpose of this paper is to show how certain diseases of the large intestines are often confused with diseases of the stomach. The signs and symptoms, clinically, are typical of those you have in diseases of the stomach, especially ulcer and carcinoma of the pyloric end and duodenal cap, but are proved by xray findings that they have had their origin in the large intestines.

In taking a careful history, the patient complains of lack of appetite; pain two to three hours after taking meals, relieved for a short time, by eating some light meal, as milk and saltines; loss of weight; tiredness and fatigue; no pep; no ambition; they want to lie down every time they see a comfortable resting place, and after several hours rest, get up feeling no better than before lying down. Solid food, meat, as fried ham and cheese, etc., filled them, as they say, with gas and indigestion; vomiting, and spitting up of blood; with heart pains, and constipation.

I am giving you these symptoms as they describe them to me, symptoms which are typical of diseases of the stomach, but upon xray examination we find a good many of these cases show a perfectly normal stomach, but the trouble lies beyond the duodenal cap, and to prove this, I am going to show you later some xray films which demonstrate these lesions, such as retention of food in certain portions of the large intestines caused by adhesions, retro-cecal appendix, loops and constrictions along certain portions of the ascending, transverse and descending colon. The non-infected appendix also is a cause of gastric disturbances, that is, the well-filled appendix, after giving the patient the barium meal, we find the extreme tip is bound down with a band of adhesions, or it is curled upon itself, and causing a delay in emptying time, due to this non-inflamed lesion.

Ptosis of the transverse colon, lying well down in the lower portion of the abdomen and unable to empty itself on account of the horseshoe bend it forms of itself with retention of food for hours, also causes symptoms often referred to the stomach.

*Read before the Medical Society of Delaware, Farnhurst, October 10, 1929.

Further gastric symptoms are due to loops or sections of the transverse colon which go up and down, resembling the teeth in a saw, and these sections or loops so close together that it takes hours for the food to pass through this area, with the inability of the stomach to empty itself, because of the transverse colon not being able to pass its contents along in normal time.

Constipation seems to be one of the great factors in producing these symptoms, and stasis of the muscles of the intestines increased because the patient is unable to eat solid food, and must adhere to a liquid diet in order to ever have a good bowel movement. There are many other causes in the lower part of the abdomen, such as diseases of the kidneys; stones in the kidney and urinary bladder; pregnancy; carcinoma of the lumbar vertebræ and pelvis; matting together of the large intestines due to adhesions; extrinsic tumor masses, and many others.

I am not mentioning all of the diseases of the large intestines in this paper, but to show you how an error in diagnosis can be made clinically, I have here several films which perhaps will impress you more than words can tell, and will illustrate to you these conditions I speak of.

(Film) In this case there is carcinoma of the rectum with no evidence. If he had had bleeding from the bowel, we might have been suspicious. The stomach was normal and the trouble lay at the extreme end of the rectum.

(Film) Here is another man, seventy-six years of age, who came in emaciated, rundown, complaining of gastric pain for three or four months. Of course, when you write to the doctors regarding the trouble being in the large bowel, they jump in the air because they feel from the symptoms that these are all stomach conditions, but here is a good illustration. Here is a stomach after three or four hours, with a loop of the transverse colon completely surrounding this stomach. This was a proven case. It was operated on about three weeks ago, and from the surgeons' report, he had this all around the stomach and there was no definite pathology with the exception of adhesions, but he felt he had a tubercular peritonitis, with a great omentum lying around all this area, so here is where xray can differentiate from an ulcer of the stomach, though he was diagnosed for ulcer several times before. So, the xray brings out the looping of the transverse colon surrounding the stomach in the middle.

(Film) You might feel from this plate that it certainly would be impossible to make a diagnosis of anything but what that shows. That is calcified kidney, but when the man was sent, he was complaining of gastric disturbance and the same old history of duodenal ulcer. You might feel you could palpate that hard mass, but none of the doctors could feel that mass on palpation and that is possibly about the largest and the greatest calicified kidney I have seen in my experience. Dr. Hugh Young, of Baltimore, who saw it, claims there are very few cases on record like it. So, you have to go further than the gastro-intestinal tract and look out for the kidney. We gave him the barium meal previous to this and we were not expecting anything like this, and the loop of the ascending colon came over the kidney, but it was such a big mass that we cleaned him out and waited two or three days and brought him back and got our calcified kidney.

(Film) This is practically the same thing. It is easy for us to make a diagnosis because when we find out we have a bowel twisted upon itself, we know there must be a mass of some kind or other. Here is the stomach and the duodenal cap, and we have an extrinsic tumor which is attached, and we knew we could make a diagnosis of an extrinsic tumor in that case, and there you will see symptoms.

(Film) Here we have the non-infected appendix, curling on itself and bound on the underside. Under the fluoroscope you can tell where there are adhesions. It is normal, but that was causing the trouble. We have adhesions here in the descending sigmoid loop, and that was removed and the gastric symptoms have all disappeared.

(Film) Now we come to another case, a case that is pretty difficult. This happened to be a young girl of twenty-two, single, complaining of the ideal picture of ulcer, but when I saw this mass. this is the stomach, and here is the duodenal cap, and here is the bowel pushed up to the undersurface of the stomach, and the barium meal should have gone here, but we see nothing but a vacant space, and the diagnosis would be tumor, but that is not helping the condition much. You want to know what kind of tumor it is, and that picture is hard for any

man to interpret. We see a space here where there should be bowel, and it was normal. We took further tests to find out what was causing that.

(Film) We gave a barium enema and still this apparently looks like a normal plate, but we see a filling defect on the left side and if that were an older person of fifty or sixty, you would be inclined to diagnose it as carcinoma.

(Film) Here is another picture of it, made the day after cleaning the bowel out, and we see another peculiar condition: we don't see the vacant spot now. Here is the appendix, but if you are close enough, you can find the vertebra of a fetus, possibly between four and five months.

I questioned this girl after I saw the xray plate, and she denied any history of pregnancy. Well, it is a hard thing to accuse anyone of unless you have the proof of it, but when I saw an outline of the spine and head I was sure of it, but still she denied it. She was turned over to one of the surgeons and I have not heard the results of that yet.

(Film) Here is the stomach after three or four hours. Here is a big mass, and I made a diagnosis of extrinsic tumor. I told them it was impossible for me to tell what kind. She was married and had five children. She had her regular menstruation every month. She was deathly sick, and not vomiting from pregnancy but from ulcer. She was ordered to the hospital for operation, but, fortunately the surgeon was on his job and examined this woman about ten minutes before the operation and he decided, when I told him it was an extrinsic mass, it might be a pregnancy, and sent her back to the xray room to see if it was possible to locate anything.

(Film) We xrayed her and found our prognosis. There is the fetal head and here the vertebræ and hands and feet, so, as I said before, they are very confusing, and you do get these cases. There was more pus than in the case of the young girl. She was married, wanted children, and had children. The doctor who treated her was sure it was gastric-ulcer instead of pregnancy until the last minute.

(Film) This is the same thing again. The bowel was pulled over in this case. It was a case of adhesions. There was a filling defect. It was operated on and there was no trouble except adhesions. There was no other pathological lesion.

(Film) The appendix comes in again. This is a non-infected appendix. The man was operated on six months previous to this for gastric-ulcer and we were not able to get much definite history from the surgeon regarding the case, but six months afterward he complained of the same indigestion as he had had previously, and we found a dark area there and barium running through it, too. The stone had become very large. There was no infection or pus whatever. The stone came out through the muscle wall and here was our barium. He was operated on two hours after the plate was taken and the conditions were verified. That really was no infection. It was a stone that caused the trouble.

(Film) This is a very interesting case where the man had an obstruction of the bowel and was operated on, but after going in apparently they saw no obstruction, and it was closed again and he recovered and went out of the hospital and two weeks after he was out had the same gastric disturbance and we found this large stone, and the question was asked, Where is it? I felt it was possibly in the descending colon. The surgeon said, "I should like to be sure. I have operated once and I don't want to go in the second time." I gave him a barium enema to prove where it was, and it was not there. The stone was outside. This was operated on the second time and this stone had erupted through the ureter and was lying in the pelvis just where it is. That was a typical case of gastric disturbance like the others.

(Film) The complete ptosis of the stomach, that gives the same typical gastric-ulcer symptoms, except that there is no pathology other than ptosis.

(Film) Here are loops and kinks causing a stasis of the large intestine and constipation.

(Film) In this case the bowel comes down both formed and matted together.

(Film) This is the last. It is another tumor mass crowding the large intestines down in the lower part of the abdomen.

DISCUSSION

DR. B. M. ALLEN (Wilmington): First I want to congratulate Dr. McElfatrick on the interesting cases he has shown. Sometimes when we look at those things we gather the idea that

he got all those cases in succession. Such is not the case. That means the doing of dozens and dozens of cases to pick out the interesting ones he has here.

I think he has demonstrated very clearly the impossibility of differentiating the clinical findings and definitely locating the trouble in the gastro-intestinal tract. That is no reflection on the clinician, because they do it in Philadelphia the same as in Wilmington.

I had a case sent to me for a barium enema in which the symptoms very definitely pointed to the colon. A barium enema was done. The colon filled well, with the exception of the midportion of the transverse colon, where there was a filling defect which could be ironed out easily, giving a normal transverse colon.

I sent back the report that this defect I felt was extrinsic to the colon and that the probabilities were that a stomach examination should be done. The patient was sent back for a stomach examination and there was a large coronoid carcinoma occupying the whole of the antrum.

Another woman, forty-four years old, sent in for fallen stomach, rather stout, lost no weight, and there was practically no anemia. She had been in bed two or three weeks with the foot of the bed propped up for the fallen stomach. She was fluoroscoped in the upright position. Films were taken and the stomach was in the normal position, but in our film I noticed a little irregularity in the proximal third of the transverse colon which made me think that barium enema should be done, so we had the patient come back and it was done, and, much to our surprise, as well as to the doctors' surprise, a carcinoma, schirrus in type, about the size of an orange was found in the proximal section of the transverse colon. It was operated on and removed, and there was no metastasis in the surrounding tissues.

Another patient, aged seventy-two, had a mass in the lower right quadrant. The doctor said he was positive it was obstruction in the colon. A barium enema was given. The colon was perfectly normal and we knew the mass was there so it must be something, so we sent the patient back for a re-examination, this time of the stomach, and a large old duodenal ulcer with adhesions was found, with the pylorus moved practically into the lower right quadrant.

Dr. McElfatrick showed a calcified kidney, which made me think of a patient, a young man with all the evident definite clinical symptoms of acute appendicitis, but the appendix had been removed, fortunately. We found a calculus in the lower right ureter about the size of a peach. He had rigidity, fever, leucocytosis, nausea, and vomiting, but the trouble was due to the calculus in the lower right ureter.

Another thing: if I am sent a gastro-intestinal case and I find the stomach normal, I look very carefully over the colon. Usually you find the trouble there if it is not in the stomach or duodenum, and the colon is a very much neglected part of the gastro-intestinal tract. Prolapsed colon is a frequent cause of gastric disturbance. There is no reason why a prolapsed colon, well down, with stagnation of food, can't cause those symptoms any more than a fallen stomach.

I saw a presentation of many cases by a New York doctor in Atlantic City several years ago. He had collected one hundred to one hundred and fifty cases of appendectomies whose symptoms were not relieved, and while I do not remember the percentage exactly there was a large percentage of these cases that he demonstrated as having a prolapsed colon.

There is another thing that we lose sight of and oftentimes the doctor doesn't think it amounts to much. When the roentgenologist says he finds a colitis or believes that the patient's condition is due to a spastic constipation, he means just that. Personally, I think that the spastic constipations, taking patients as a whole with gastric symptoms, is one of the most common causes of gastro-intestinal disturbances.

DR. L. J. JONES (Wilmington): Dr. Allen brought out the facts that a stone in the ureter is often mistaken for appendicitis, and it recalls to my mind a case I had a few years ago that I mistook for stone in the ureter that was appendicitis. I was called to see a man who had been taken very suddenly with acute abdominal pain on the left side. He was at his office and two of the men in the office brought him home, and I was called. He was in intense pain. The pain was on the left side in the loin, radiating down towards the left testicle. He had no temperature and I gave him a hypodermic of morphin and thought he would probably pass a kidney stone the next morning and that would be all there

would be to it. I was called the next day. The man was still suffering intense pain and I thought I had better investigate a little further. He still had no temperature. I took him down to Dr. Burns' to have an xray of the kidney region and he found nothing there, and I said, "Suppose you give him a barium enema." He did so and, much to our amazement, watching it under the fluoroscope, the enema proceeded up the right side and over and across, and the diagnosis was made, but, unfortunately, by that time he had a ruptured appendix. He recovered with a stormy convalescence. It was a left-sided appendicitis and the symptoms were such that even if the pain had been on the right side, I would have almost suspected kidney stone rather than appendicitis.

DR. MCELFATRICK: I should like to lay a little more stress on the importance of Dr. Allen's remarks in regard to complete gastro-intestinal study. We have so many of the men who really like to give a patient all that is coming to him, but sometimes the price is a bugbear, and on one or two occasions we have a call for xraying the stomach only, or to give a barium enema only. I have refused to do only part of the gastro-intestinal tract. If the patient can't afford to have it done, I do it for the same price, the price they can afford.

A physician called me up and said he had a female patient with a fallen stomach and he knew it, and he only wanted one plate of the stomach taken and not to charge more than five or ten dollars. We did it. About two months after that this woman came to a hospital. The first one was done in my office. She was hospitalized by another physician and was sent to the xray room. She said, "Do I have to take all that old stuff again?" I said, "Have you ever done it before?" "Oh, yes, down in Dr. McElfatrick's office, but they tell me he is no good." I said, "I have heard that myself." She said, "This time, Doctor, I want a thorough examination, because I didn't get it the last time."

I didn't say anything to the woman, but after we had done the series of stomachs, she was sent upstairs and the family physician came in and I told him the joke and he went upstairs and told her the whole thing and she refused to come back to the xray room. I did get her down finally and she apologized, but I was glad she had made that remark, and I straightened her out by telling her we had taken only one plate and had not begun to give her the examination we were then giving her. I made a friend instead of an enemy, and we did find that woman had carcinoma of the descending colon. We can cite case after case of that type, and that is the reason why I say that when I start a gastro-intestinal and am asked to do a portion of it, I do it all.

During the epidemic of flu in 1918 I went out to do general practice and I happened to know the people very well on one case, and I made a diagnosis of appendicitis on the patient, who was a girl, but every hospital and all the country clubs were full and there was no such thing as getting an operation. We put an ice cap on and the pain was relieved, but two months later she had the same condition, and I told her I felt she should be operated on. The atmosphere had cleared by that time and I thought it would be a good idea to do an xray, and we found an absolutely normal appendix. We took her to the hospital anyhow and she was operated on and she had a cystic ovary. That shows you how careful you have got to be in those cases.

Re: Delaware Avenue

At a recent meeting of the Social Service Club, William F. Kurtz gave an extremely interesting account of the very concrete obstacle that stands in the way of Delaware Avenue being cut through to Market Street. It seems that John Dickinson, famous Delawarean of Colonial times, owned and lived on a property that extended from Eighth to Tenth Streets, on the west side of Market. A movement was started back in those days to cut Delaware Avenue through. This meant that it would go through Dickinson's property. Dickinson objected strenuously to this and to salve the interested citizens, gave the borough of Wilmington part of the property on which the Old Town Hall now stands, with the understanding that Delaware Avenue would not be cut through. In going through the deeds to the Old Town Hall, Mr. Kurtz found this clause. The result of this situation might be (if Delaware Avenue were cut through from Tatnall to Market) that the heirs of John Dickinson could claim title to the property on which part of the Old Town Hall stands.

Consider the Pedestrian

Legal protection was guaranteed the pedestrian on the nation's highways by a recent decision of the United States District Court of Appeals. In other words—the pedestrian has the right-of-way, and and in case of accident the motorist is chargeable with negligence.

However, this does not authorize pedestrians to defy drivers to run them down. The careless pedestrian and the inconsiderate driver are both a menace to others, as well as themselves, and will be dealt with accordingly.

The law is usually with the pedestrian, and rightly so, for he is in most cases, the chief sufferer.

After all, the Golden Rule is the best traffic law.

EDITORIAL

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CRIMINOLOGY AND PENOLOGY OF THE FUTURE

Medicine has progressed rapidly in the last century, but until twenty years ago, psychiatry has lagged behind the other specialties. The War, however, has brought it out of the rank and file of the neglected well into the fore of those who were leaders only a few years ago. Since this time rapid strides have been made toward the discovery of various causes of behavior. To the psychiatrist various crimes are only symptoms of a personality problem which should be carefully studied. It has been determined that abnormal psychology is found not only in hospitals for the insane but in every walk of life. Our prisons are filled with people who are repeated offenders. As long as each offender is treated according to a single formula instead of according to the symptoms he shows, he will continue in his course. It would seem that in a short time the public will see that individual offenders cannot all be treated the same with any hope of improving their behavior. If their psychological and psychiatrical makeup is carefully studied, and the punishment meted to fit the individual instead of the crime, there might be a greater tendency to reform and a less one toward repetition.

In 1917 Alfred E. Smith, the Governor of New York, appointed a prison survey committee*, recommended that "County jails should be abandoned as places of punishment. All persons should be sent to clearing houses for a diagnosis of their conduct disorders, and for classification. Thereafter they should be confined in specialized units of a diversified institutional system, including industrial farms and vocational training schools. Sentences should be made truly indeterminate. No paroles should be issued until the prisoners problem has been sufficiently well met to warrant the belief that he will adapt himself in the community. Even after parole the prisoner's activities should be supervised by a psychiatric social service worker."

Massachusetts has a law making psychiatric examination a compulsory routine procedure for capital offenders or for second offenders.

In 1927 Governor Smith, at the meeting of the New York State Crime Commission, "proposed to take the sentencing power from the judges in felony cases, and invest it in a special commission composed of experts in law, psychiatry and psychology.

The changes were summed up in the New York Times, as follows:

"That the jury should determine only the guilt or innocence of the person on trial.

"That after a jury has returned a verdict of guilty, the power of imposing sentence should be taken from the judge who presided at the trial and given to a special State Board to be created by a constitutional amendment.

"That the members of the board should include legal experts, psychiatrists, and penologists, devoting their entire time to the work.

"That this board should determine whether a convicted felon should go to a state prison or to an insane asylum; and that it should determine

* The "Human Mind" by Karl A. Menenger.

the length of punishment and the extent he may be subject to parole."

The Governor at this time said, that he felt that the power invested in the judge to sentence to death has done more than anything else to prevent the convictions for murder in the first degree.

In 1929 "The Committee from the section on criminal law of the American Bar Association, after a conference with the committee from the American Psychiatric Association, recommended to its own association that it advocate:

1. That there be available to every criminal and juvenile court a psychiatric service to assist the court in the disposition of the offenders.

2. That no criminal be sentenced for any felony in any case in which the judge has any discretion as to the sentence until there be filed as a part of the record a psychiatric report.

3. That there be a psychiatric service available to each penal and correctional institution.

4. That there be a psychiatric report on every prisoner convicted of felony before he is released.

5. That there be established in each state a complete system of administrative transfer and parole, and that there be no decision for or against any parole or any transfer from one institution to another without a psychiatric report."

The last issue of the Mental Hygiene bulletin gives us the following interesting information:

"PRUSSIA TRANSFERS SENTENCING POWER FROM JUDGES TO EXPERT BOARD

"The sentencing power is taken out of the hands of the judge and placed in a special board charged with the scientific study and treatment of the criminal under the new penal system recently instituted in Prussia.

"Careful classification of all prisoners, special study of the offender's physical and mental condition, his family and social history, and individual treatment under an elaborate system of diversified correctional institutions, are comprehended under the new plan.

"As far as possible, these institutions will have the benefit of the services of psychiatrists who will treat prisoners suffering from mental or emotional maladjustments, as well as study the personalities of the more normal classes of prisoners.

"Some very novel and definite practices will be adopted in the new prison regime which will accord more with that of the training school concerned primarily with the preparation of the individual for a social, law-abiding life, even to the extent of arranging for the employment of prisoners in factories and shops out in the community."

MEXICO REVOLUTIONIZES CRIMINAL LAW

The most radical theories of reform in the management of the anti-social offenders ever propounded by students of the social science of criminology in this country or in Europe, will be tried out in actual practice under the terms of the new penal code which Mexico adopted during the latter days of the administration of Portes Gil, and which went into effect on January 1st.

The new code effects such revolutionary changes in judicial and penal procedure as the abolition of the traditional jury, doing away entirely with the death penalty for civil crimes, and the substitution of social, medical, psychiatric, and educational study and treatment of the individual offenders, by the commission of experts, for the usual methods of conviction, sentencing and imprisonment.

The body charged with the duty of socially rehabilitating the criminal instead of meting out mere punishment, is the "Supreme Council of Social Prevision and Defense", which consists of five members, all specialists in penology, criminology, or related social sciences, who will have full authority over all penal and correctional institutions. This council takes up the disposition of the offender where the court's dealings with him leave off, that is, immediately after conviction.

But the new method of handling the prisoner operates even earlier, as the prosecuting attorney and other agents of the department of justice, as well as the judge himself, must obtain all available historical, family, social, medical and other data regarding the offender and his past behavior before he is sentenced, and such sentences must, in all cases, be literally indefinite.

This new Mexican code applies only to federal prisoners, that is, to persons convicted in the federal district, including Mexico City, and those falling under federal jurisdiction in the states. It is optional with the several states in their own jurisdiction.

Pennsylvania will possibly attempt to pass a law abolishing the sentencing by judges (Public Ledger, Feb. 7).

We feel that our own state is rapidly following the lead. The Juvenile Court has a Psychiatrist which examines all of the juvenile offenders. Many of the offenders in the other courts have had psychiatric study. Facilities are available for the study of any inmate of any of the penal institutions. The medical and legal professions are beginning to work hand in hand to solve the problems of crime, and to make the best possible adjustment for the unfortunate offenders.

We feel that mental deficiency is one of our great problems at the present time, and that a great many of our repeating offenders belong in this classification. These people are unable to make their own adjustments, and it must be done for them or they will offend again at the first opportunity.

Probably the most practical and immediate step which could be taken to improve, and which would require the least legislative re-adjustment, would be that prisoners should be examined psychiatrically before parole, and if any mental disorder or defect likely to cause a repetition of the crime is found, parole should be denied, and the individual kept incarcerated until he is able to adjust in society.

It would seem that the Medical Society should take a greater interest in these questions as they exist. One or two meetings a year which would be of interest to the legal profession, and to which the Bar Association would be invited, would help to cement the excellent co-operation which now exists between the two professions.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

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We want THE JOURNAL to serve *you*.

We believe the New Castle County Medical Society would be rendering its members and the public generally a service if they would ascertain just what are the rules and regulations of the nursing profession in Wilmington, with special reference to their method of computing the time for which compensation is demanded. The regular rate here is $6 per day or $42 per week for 12-hour duty, and $6.50 per day or $45 per week for 24-hour duty with general medical or surgical cases. That sounds very plain and simple in words, but in practice it is not quite so plain or so simple. For example, we know of an instance where a nurse was called for a tonsil case, arriving about 1 P. M. The patient left the hospital the next day shortly before 1 P. M., and the nurse was then discharged, both patient and nurse having been in the hospital just short of 24 hours. However, the nurse's bill was $12, representing, we imagine, a fraction of each of two days at $6 each fraction. It is rather difficult to get the public to understand that "$6 per day" does not mean $6 per 24 hours; we don't understand it ourselves. Or, another example. A nurse was called, arriving at the hospital shortly after midnight on a Wednesday, presumably to serve for one week, on 24-hour duty. The following Monday, when the patient inquired just when the nurse would be leaving, the nurse said that her week would be up Tuesday at 7 P. M., being over a full day less than a week. We admit we do not comprehend such mathematics, but we firmly believe the situation should be clarified, and promptly at that; the paying public has a right to know just how the trick works.

We are advised by a prominent life insurance man that under the Delaware law, in a case terminating in death, the undertaker is the first preferred creditor. Many of our profession were under the impression that the doctor's bill came first. Our advisor assures us that competent legal advice is to the contrary, a point which the physician may wish to know about when the time comes, in certain cases, to sign insurance papers. Occasionally the only chance the doctor ever has of collecting his bill is via the insurance check, but it seems that even here the undertaker has the bulge on him.

It seems expecting too much to look for an understanding by the public press of medical men or medical things. Witness the headline recently: "Caesarean Operation Causes Death." Nothing could be more unfair. The patient had been a nephritic for a long time, had had several convulsions before the operation, and the operation itself, performed practically at term, was

done with neatness and dispatch, the patient living for several days. The patient clearly died of the condition for which the operation was done and not because of the operation per se, yet the public is led to believe that the operation itself caused the death. We repeat: Nothing could be more unfair.

And the following editorial, from the Baltimore Sun of February 10, 1930, illustrates how even a renowned daily, famous all over the country and especially in Congress for the clarity and pungency of its editorials, may fall into misunderstanding and error. We do not have the space to discuss the editorial; our medical readers who are at all familiar with the struggle at Ann Arbor can easily read between the lines.

DOCTORS COLLECTIVELY

Take a group of physicians away from their scalpels, herbs and simples, and organize them into a society, and their worst foot is almost certain to be put forward. Such, at any rate, is the most charitable interpretation which can be put upon the stand of the medical organization in Ann Arbor, Mich., in forcing the resignation of Dr. Hugh Cabot as dean of the university medical school, apparently on the dual charge that he has been trying, from his point of view, to improve the academic standing of the faculty by increasing the number of full-time professors and that the university hospital has been admitting too many free patients. Only a committee of doctors would be clumsy enough to make the actual reasons for their action so plain. Stockbrokers, realtors and American Legion posts would have managed somehow to discover that Dr. Cabot was guilty of Bolshevism, non-payment of rent, or improper display of the flag. The wording of the charge to read that Dr. Cabot has lowered the tone of the medical school by trying to fire the complainants themselves is too disingenuous to be described as a subterfuge.

Though this is perhaps a tribute to the guillessness of doctors as a group, it is hardly a tribute to the professional disinterestedness of the leaders of the medical organization at Ann Arbor. Dr. Cabot has been called an idealist, but that fact should not condemn him altogether in the eyes of men who have taken the oath of Hippocrates. Even if idealism is a false note in some medical groups, it would surely be better politics to attack it by means of *enfilade* fire rather than frontally, as the Ann Arbor doctors have attacked Dr. Cabot. Even explained by the inability of medicos to disguise the Old Adam as other professions are able to do, the Ann Arbor episode, coupled with other instances in which the healing art has been uncomfortably associated with the racket, does not reflect the real sentiment of important medical and surgical practitioners.

The lesson, if any, is for doctors—since they must organize—to insist that their organizations do nothing. A single resolution can do the profession more harm than a thousand false diagnoses.

It seems to us the editor is writing, not merely without proper knowledge and consideration but with a degree of antipathy or even venom that does not become the pages of a daily with the power and prestige of The Sun.

WOMAN'S AUXILIARY
to
MEDICAL SOCIETY OF DELAWARE

An organization meeting of the Woman's Auxiliary to the Medical Society of Delaware was held at the Wilmington Country Club on December 10, 1929. The meeting was held in response to a suggestion by the president of the Medical Society of Delaware. Mrs. Harold Springer presided as temporary chairman. Twenty-six women were present and applications for membership were received from thirty others.

The following officers were elected:

President, Mrs. Robert W. Tomlinson, Wilmington; Vice-Presidents, Mrs. William Orr, Lewes, Sussex County; Mrs. Joseph McDaniel, Dover, Kent County; Treasurer, Mrs. M. A. Tarumianz, Farnhurst; Secretary, Mrs. Laurence Jones, Wilmington.

A few rules for the Delaware Chapter were made, patterned after the National Auxiliaries' Constitution, and plans were formed for the next meeting.

We had felt our first meeting to be successful but our second meeting surpassed our expectations. This meeting was held at Dover on February 11, 1930, under the most hospitable and capable management of the Dover members.

We were delighted to have Dr. McCollum as one of our guests and hear a word of greeting from him. Dr. T. H. Davies, chairman of the Advisory Board to the Auxiliary, sent us greetings and assurance of the Board's co-operation. We were notified that the Auxiliary had received $50 from the Medical Society to assist us with our early expenses. We are very grateful for this gift and wish to express our appreciation to the Medical Society.

Mrs. J. Newton Hunsberger, president-elect of the Woman's Auxiliary to the American Medical Association, gave us a most inspiring talk concerning the work of the Pennsylvania Auxiliary.

Mrs. George McElfatrick read the By-Laws which her committee had drawn up. I should like to mention two of our By-Laws which may be of interest to the members of the Medical Society.

ARTICLE II.—OBJECT

The object of this Auxiliary shall be to assist the Medical Society of Delaware in:

1. Advancing the cause of preventative medicines;

2. Promoting good fellowship among physicians' families;

3. Doing such work as is suggested by the Medical Society of Delaware.

ARTICLE III.—MEMBERSHIP

Members of the Woman's Auxiliary shall be: the wives, mothers, daughters and sisters of the members of the Medical Society of Delaware in good standing or who at the time of their decease were in good standing.

We had an attendance of over forty at our Dover meeting and our total membership is now sixty-three. We have endeavored to reach the wife of each member of the Medical Society, and wish to be notified if we have failed to do so. We had secured a list of physicians but not of their wives.

We ask the co-operation of each member of the Medical Society in calling the attention of his family to Article III on membership.

The Auxiliary wishes to grow and hopes to have as members all those eligible for membership under Article III. The secretary will be glad to send an application blank to all who notify her, and we earnestly hope that our membership will be doubled or trebled before our next meeting in May.

KATHERINE T. JONES,
Secretary.

We Hope She Gets It

F————, Del.
Jan 1,29,30

Dear . . Dr . . Blank

Will now write you in request of your ad. . that I was just now reading.

I would be verry greatly pleased as to have the offer of the position you now offer in the Morn. News, as I am not wealthy as my finencial fare Depend on my self alone. .

I am twenty five yrs of age and weight one hundred and thirty seven lbs. . and am verry inteligent no mortal Habits and have a verry pleasent disposition in every way can give good reference

Also can start to work any Date . . suitable and would appreciate the position verry highly

Kindly let me here from you state salary. Please

Yours respt
Miss Charity L H———
F————
R 1 Delaware

MISCELLANEOUS

A Federal Narcotic Dictator

The Porter bills are before Congress and the papers of Mr. Hearst are actively supporting them. If one bill,* introduced in the House of Representatives by Representative Porter of Pennsylvania, January 23, becomes a law, licenses from the United States Commissioner of Prohibition will be necessary to enable physicians to use narcotics lawfully in the practice of medicine. The commissioner is authorized by this bill to prescribe regulations governing the issuing, suspension and revocation of licenses. He is not bound in any way by any license of any kind that any state may have issued. Since the proposed law is not inconsistent with the Harrison Narcotic Act and does not expressly repeal it, licenses from the Commissioner of Prohibition will not relieve physicians of the obligation to register annually with the Commissioner of Internal Revenue, to pay an annual narcotic tax and to comply with all the conditions imposed by that act. What is true of physicians under the proposed law is equally true of dentists, veterinarians and pharmacists.

Except for two limitations, the authority of the Commissioner of Prohibition to control licenses under the proposed act is subject only to the right of the Secretary of the Treasury to approve or disapprove such regulations as the commissioner may propose and the right of the courts to review final action by the commissioner. No one who has ever been convicted of any offense against a federal or state law relating to narcotic drugs, regardless of how trivial that offense may have been, may ever be licensed under the proposed act; if his license is revoked, its possessor can never thereafter use narcotic drugs professionally, for a new license cannot be issued. A narcotic addict may not be licensed, and it is left to the commissioner to determine when a person becomes a narcotic addict and when he ceases to be one. The bill offers no other suggestions from Congress as to who may and who may not be licensed; what conditions are to govern the issue, suspension and revocation of licenses; how long a period and how great an area a single license is to cover; what limitations are to be imposed on the character and amount of narcotic drugs that a licentiate may use, what records are to be kept or what reports made. All

* H. R. 9054.

these matters the commissioner is to determine and control by regulations.

It would seem that these stipulations would in themselves endow the commissioner with sufficient power, but there is more to come! If the commissioner is considering the rejection of an application for a license, he is not required to give the applicant notice of his supposed disqualifications. In suspending or revoking a license, the commissioner does not have to give the licentiate notice of the charges against him, if there are any. The commissioner merely calls on the applicant to show cause why a license should be issued, or calls on the licentiate to show cause why his license should not be suspended or revoked; the burden of proof is on the applicant and the licentiate. When the answer comes, the commissioner is to arrange for a hearing. This may be anywhere that the commissioner considers most practicable and convenient, in view not only of the place of residence of the applicant or licentiate but also of the place where the evidence bearing on the case is most readily obtainable. The person who must defend his rights has no voice in determining the place of hearing, and no method is provided by which he can cause a hearing to be transferred. Whether the hearing shall be public or private is apparently left to the person who holds it. Any officer or employee of the Bureau of Prohibition may be assigned by the Commissioner of Prohibition to hold such a hearing.

The employees and officers assigned to conduct hearings, and the Commissioner of Prohibition, may issue subpenaes to compel the attendance of witnesses and the production of books, papers and documents. A subpena so issued may apparently be served in any place under the jurisdiction of the United States. The applicant or licentiate who wants subpenaes compelling the attendance of witnesses and the production of evidence on his own behalf can get them only by telling the officer who is to hold the hearing what each witness will testify to. Then the officer determines the necessity for the subpena before he issues it.

Although any employee of the Bureau of Prohibition may hold hearings, only the Commissioner of Prohibition may pass on the evidence. All evidence is to be recorded and forwarded to the Commissioner of Prohibition for final action. Even if the commissioner has never seen the applicant or the witnesses, he makes the decision. Provision is made for appeals to the courts from decisions rendered by the Commissioner of Prohibition, but no provision is made for suspending the operation of the commissioner's decision pending a decision by the court. Indeed, the rules to be followed with respect to appeals are vague and uncertain. This government is going to be government.

Supplementing this legislation, a companion bill was introduced by Representative Porter on the same day. It proposes to transfer from the Commissioner of Prohibition to a proposed commissioner of narcotics all Federal functions with respect to narcotics now vested in the Commissioner of Prohibition. It proposes further to abolish the Federal Narcotics Control Board and to vest all authority and power of that board in the proposed commissioner of narcotics. The division of narcotics in the Bureau of Prohibition is to be magnified into a bureau of narcotics, under the supervision and control of the proposed commissioner of narcotics.

Certainly there is nothing to indicate that such a transformation would in any way increase the efficiency of narcotic control.

The legislation proposed is in complete harmony with the prevailing tendency to substitute a powerful bureaucracy in Washington for the authority of the states. If the Porter bills become law, a physician, dentist, veterinarian or pharmacist authorized by a state to practice his profession cannot use narcotic drugs in connection with his work until a Washington bureau chief, under rules and regulations of his own making, says that he may. Autocrats of such a type have no place in the American scheme of government. Efforts are already being made to bring about the early enactment of this legislation. Physicians and all interested organizations must protest at once against its enactment. Reach both representatives and senators, even though the bill is not yet before the Senate. In the face of such a menace and with an understanding of the type of propaganda that will be behind the Porter bills, all the power that an intelligent people and particularly the medical profession can wield must be mustered to the defense of the right of physicians and related professions to practice for the good of man without further bureaucratic molestation.—*Journal A. M. A.*, Feb. 8, 1930.

BOOK REVIEWS

A Text-Book on Orthopedic Surgery. By Willis C. Campbell, M. D., Professor of Orthopedic Surgery, University of Tennessee. Pp. 705, with 507 illustrations. Cloth. Price, $8.50. Philadelphia: W. B. Saunders Company, 1930.

Campbell's book fills a long-felt want, in that, as outlined in the preface, he presents his subject "in a simple and comprehensive manner." The arrangement of the material is excellent, and includes much matter, especially in fractures and dislocations, not usually included in a text on orthopedics. His discussion of arthritis and poliomyelitis is especially good, being superior to his discussion of dislocations of the hip and shoulder. His style is quite readable, his diction is clear and terse, and his choice of treatment is excellent. Some of the operations, we feel, should be described in greater detail, and include more illustrations, e. g., the technique (preferably Babcock's) of nerve suturing. There are surprisingly few typographical errors for a new book: Fig. 488 shows the left foot amputated though the legend says it was the right one. The illustrations are commendable. The index is very good, but there are not enough cross-references to the authors of various operations. For instance, Hoke's operation is indexed under poliomyelitis and also under Hoke, but Davis, Orr, Soutter, etc., are not indexed as such. Finally, while polydactylism is described under numerical variations, the name itself does not appear in either the text or the index. These defects are mere minor ones, and hardly detract from the value of the book.

The major thing is the text itself, which is one of the best we have yet encountered. The things you want to know are where you would expect to find them, and there is no mistaking the language. The book can be highly recommended, especially to those who are not practicing orthopedics as a specialty, but who wish authoritative advice. We predict it will be very popular.

Symptoms of Visceral Disease. By Francis M. Pottenger, M. D., Medical Director, Pottenger Sanitorium. Fourth Edition. Pp. 426, with 97 illustrations. Cloth. Price, $7.50. St. Louis: C. V. Mosby Company, 1930.

This somewhat unique work has reached its fourth edition, proof enough that the author has something to write and somebody to read. His work is a physiological discussion of visceral neurology, the clinical application being found in the author's concept that no organ can be understood except in its relationship to other organs. The data, both anatomical and physiological, assembled here is perhaps not assembled elsewhere. The book is not one to read with the radio turned on. The ten color plates are unusually good, and make plain many portions of the text that otherwise would hardly be understood. Though dealing with a difficult subject, the author's clear style and thoroughness leaves little to be desired. The book can be recommended to those interested in this general phase of medicine.

Clinical Obstetrics. By Paul T. Harper, M. D., Clinical Professor of Obstetrics, Albany Medical College. Pp. 629, with 250 figures. Cloth. Price, $8.00. Philadelphia: F. A. Davis Company, 1930.

The subject is here approached from a different angle from that found in the clinical textbook: a theoretical grounding and a practical working knowledge of the subject is presupposed.

The author's avowed interest is to encourage the working out of each case rather than the attempt to pour it into some mould of a set of prearranged procedures.

The effort of the work is laudable and help can be secured from it by those whose real interest lies in the subject.

Getting Well and Staying Well. By John Potts, M. D., Fort Worth, Texas. Second Edition. Pp. 221, with illustrations. Cloth. Price, $2.00. St. Louis: C. V. Mosby Company, 1930.

This revised edition of Dr. Potts' treatise on tuberculosis, written in a language that the layman can enjoy and digest, should be in the hands of every patient when he has been diagnosed tubercular. Especially should it be read by every nurse, and particularly those doing tubercular and welfare work, for such a nurse may be able to detect the first symptoms suggestive of tuberculosis. The suggestions on diagnosis are valuable to all physicians who have not had special training. The book is so well-balanced that it would be hard to pick any chapter that should not be of value to a patient with tuberculosis.

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Meets the Second Thursday

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Committee on Nominations: U. W. Hocker, O. V. James, H. M. Manning.

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